

Short Curriculum Vitae
Prof. Sara Rainieri, University of Parma
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Sara Rainieri has been Full Professor of Thermal Engineering and Industrial Energy Systems at the Department of Engineering and Architecture, University of Parma, since 2015. She is also a member of SITEIA.PARMA, the University's Interdepartmental Center for Food Safety, Technology and Innovation. She graduated summa cum laude in Physics from the University of Parma and obtained her PhD in Applied Physics in 1997. She served as Pro-Rector for Education and Student Affairs from 2017 to 2023 and has been President of both the Italian Union of Thermal Fluid Dynamics and the Italian Association of Applied Physics since 2023, with both mandates renewed for 2026–2028.

She received an honourable mention in the EUROTHERM Young Scientist Prize and Awards 2000 and was named Best Associate Editor of the ASME Journal of Heat Transfer for 2022. Her national research coordination roles include PRIN2007 on innovative forced-convection enhancement techniques, PRIN2022 MOOD4HEX on morphology-optimized heat exchanger design, and PRIN2026 ENCHANT on engineered surfaces and geometries for heat exchangers in sustainable thermal systems. She also served as Scientist-in-Charge and PhD mentor for HiStabJuice, a Marie Skłodowska-Curie Innovative Training Network focused on innovation in fruit juice processing. She has also led the University of Parma's Food Process Control Plant research unit within METROFOOD-IT, the Italian research infrastructure coordinated by ENEA.

Her research combines theoretical, numerical and experimental approaches to heat transfer enhancement, particularly for food processing; inverse heat transfer problems; infrared thermography and parameter estimation; and the optimization of energy performance in integrated systems.